



Rainscapes for Schools

Support Documents

- 1. Site Inventory Check List**
- 2. Suggested Plant List**
- 3. Maintenance Plan Sample**



Maintenance Plan Sample

Maintenance plans are required for RainScapes for Schools projects. These plans are intended to provide a framework for maintenance so that projects are attractive and functional. Regular maintenance may need to be scheduled for times when community volunteers can assist with the maintenance of a project. This is especially important during the establishment period and summer months when watering may need to be provided. Water use and maintenance workloads will be reduced by following the guidance that is provided during the application process.

Online resources for maintenance plan templates are available from a variety of sources.

Montgomery County Public Schools Garden template site maintenance suggestions:

<http://www.montgomeryschoolsmd.org/curriculum/outdoored/garden/>

Gardens for learning: Planning your school garden:

<http://www.csgn.org/page.php?id=27>

Burlington Gardens:

<http://www.burlingtongardens.org/Garden.planning.checklist.fbg.pdf>

Chicago Botanic Garden and USBG:

<http://www.schoolgardenwizard.org/>

National Wildlife Federation:

<http://cf.nwf.org/outside/pdfs/onlineeducatorresources.pdf>

<http://www.nwf.org/Get-Outside/Be-Out-There/Educators/Schoolyard-Habitats/Maintain-Your-Habitat.aspx>



Maintenance Plan Sample


NWF Schoolyard Habitat Seasonal Maintenance Plan:

<p>Winter</p> <ul style="list-style-type: none"> • Keep water source free of ice (if applicable) • Clean old nests from bird nest boxes • Put up new bird nesting boxes • Build bat boxes and bird boxes and feeders • Make labels and signs for the habitat • Design your habitat landscape and any new additions • Plan Spring projects 	<p>Spring</p> <ul style="list-style-type: none"> • Check soil conditions (adjust as needed) • Check everything for winter damage • Conduct cleanup and planting day • Clean up habitat and remove litter • Plant perennials and shrubs • Monitor nest boxes • Add mulch (as needed) • Obtain and train volunteers to handle summer maintenance
<p>Summer</p> <ul style="list-style-type: none"> • Fertilize plants with compost • Be sure to water! • Keep bird baths and ponds filled • Remove weedy invasive plants • Harvest vegetables and some flowers 	<p>Fall</p> <ul style="list-style-type: none"> • Divide and replant perennials • Plant bulbs • Plant trees • Mulch or cover young trees and plants for winter • Clean up habitat and remove litter

RainScapes for Schools Site Inventory Worksheet

Site Inventory items	Codes (make a coding system for each location and indicate symbol in this column)	Comments	Comments
○ land use and note conditions of surfaces			
○ location of stormdrains			
○ location of downspouts and downspout outfalls			
○ dumpster locations			
○ trash distribution on site			
○ use conflicts			
○ erosion paths			
○ areas of puddling			
○ existing canopy area			
○ map the existing trees and note their appearance (i.e. damaged bark or good bark?)			

RainScapes for Schools Site Inventory Worksheet

Site Inventory items	Codes (make a coding system for each location and indicate symbol in this column)	Comments	Comments
○ orientation of site (where is North)			
○ future development plans from MCPS Facilities – geothermal, additions, portable classrooms			
○ former portable classroom sites			
○ Access to water			
○ Access to/from building			
 Analysis (interpretation) of inventory information – locate on the map			
○ Areas to exclude from possible garden sites			
○ Best opportunities for garden template sites			
○ Best opportunities for rain garden sites			

RainScapes for Schools Site Inventory Worksheet

Site Inventory items	Codes (make a coding system for each location and indicate symbol in this column)	Comments	Comments
○ Best opportunities for tree planting			
○ Best opportunities for conservation planting			
○ Best opportunities for applying for downspout disconnection via a rain barrel			
○ Strategy for trash cleanup			
○ Stormdrain marking needs/ education opportunities			



***Suggested Plant Lists for Rainscapes for Schools:
Rain Gardens, Conservation Landscaping, Urban Canopy Trees***

Plants for Rainscapes for Schools are organized by project type. Plant lists are not intended to be exhaustive but rather, to provide a base list of the easiest to grow and sustain plants which are suited to the conditions at schools, support curricular projects and are low maintenance selections. Many other plants could be used in projects with additional commitment to maintenance.

Rain gardens, as a subset of the larger low impact development (LID) bioretention facilities, are best planted with the plants that perform well under bioretention conditions. Special consideration has been given, however, to providing a plant list which will meet the curricular needs of teachers as well as providing a place for water to infiltrate rather than run off into the storm drain system. Many of the plants which are best suited for stormwater value also have high habitat value and support a wide range of pollinators and other beneficial insects and birds. This will enhance the habitat value of the school grounds, in keeping with the Maryland State Department of Education's guidance that every schoolyard in Maryland should be a habitat.



Rainscapes Plants for Schools

www.rainscapes.org

recom./ easy ✓	Botanical Name	Common Name	Bloom	Color	Sun Type	Soils	Height	Spacing (on center)	Comments
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**RAIN
GARDENS &
CONSERVATION
LANDSCAPES**

tall and/or
'floppy'/ may
need supports

✓	<i>Aquilegia canadensis</i>	Wild columbine	June-Aug	red and yellow	Sun-Shade	Sand, Loam, Clay, moist-dry	2'	1'	deer resistant
✓	<i>Amsonia hubrechtii</i>	Blue-Star Flower	May-June	blue flowers, yellow fall color	Sun-Pt Shade		2'	18"	3' tall, fine texture, blue summer flowers, yellow fall color, needs part sun
✓	<i>Asclepias incarnata</i>	Swamp Milkweed	June-Aug	pink	Sun-Shade	Sand, Loam, Clay, Dry-wet	2'-4'	2'	deer resistant
	<i>Asclepias syriaca</i>	Common Milkweed	May-Aug	pale purple	Sun	Moist	3.5-6.5'	2'	deer resistant

✓	<i>Asclepias tuberosa</i>	Butterfly weed	may-june	orange	Sun	Sand, Loam, Clay, Dry-med	1-3'	1-2'	deer resistant
✓	<i>Aster novae angliae</i>	New England Aster	Aug-Oct	purple	Sun-Shade	Sand, Loam, Clay, Med-wet	2'-6'	2'-3'	deer resistant. Not near doors and windows
✓	<i>Aster divaricatus</i>	White Wood Aster	Jul-Oct	white	pt Shade-sh	dry-med wet	0.5-3'	1-2'	spreads freely
✓	<i>Baptisia australis</i>	False Blue Indigo	may-june	blue, purple	Sun-Shade	sand, loam	3-5'	1-2'	deer resistant
	<i>Chelone glabra/obliqua</i>	Turtlehead	aug-oct	white/pink	Sun-Shade	Sand, Loam, Clay, Dry-med	1-4'	12-18"	host plant to Baltimore Checkerspot butterfly, MD state insect
	<i>Chrysogonum virginianum</i>	green and gold	mar-jun	yellow	Sun-Shade	dry-med wet; loam	0.5-1'	1'	
✓	<i>Coreopsis verticillata</i>	Threadleaf Coreopsis	jun-oct	yellow	Sun, PS	dry-med wet, loam	1-3.5'	1-2'	
✓	<i>Echinacea purpurea</i> 'Kim's Knee-Hi'	Dwarf Purple Coneflower	May-Aug	pink	Sun	dry	15"	12"	butterfly attractor, deer resistant
✓	<i>Echinacea purpurea</i> 'Magnus'	Magnus Purple Coneflower	May-Aug	dark pink	Sun	dry-moist	24"	15"	butterfly attractor, deer resistant
✓	<i>Echinacea purpurea</i> 'Razzmatazz'	Razzmatazz Purple Coneflower	June-Aug	dark Pink Double	Sun	dry	24"	15"	butterfly attractor, deer resistant

✓	<i>Eupatorium coelestinum</i>	Mistflower	Jul-Oct	blue-purple	pt Shade-sh	dry to wet; clay, loam	1-3.5'	1-2'	
	<i>Eupatorium dubium</i>	Coastal Joe-pye Weed ('Little Joe')		pink, dk pink	Sun, PS	moist	3-4'	2'	not near doors/ open windows
	<i>Eupatorium fistulosum</i>	Common Joe-pye weed	jul-sep	pink	Sun	moist-dry	1.5-6'	2'	not near doors/ open windows
	<i>Eupatorium perfoliatum</i>	Boneset	Jul-Oct	white	Sun-pt Shade	Sand, Loam, Clay, med-wet	3-4'	1-2'	not near doors/ open windows
	<i>Eupatorium purpureum</i>	Sweet Joe-pye weed	July-Sept	pink-dk pink	Sun-pt Shade	Sand, Loam, Clay, moist	5-6'	1-2'	not near doors/ open windows
✓	<i>Geranium maculatum</i>	Wild Geranium	Apr-Jul	pink	Sun-pt shade	dry-med, loam	1-2'	1-2'	deer resistant
	<i>Helenium autumnale</i>	Sneezeweed	Jul-Nov	yellow	sun-pt shade	med. wet, clay, loam, sand	1.5-6'	1-2'	deer resistant
✓	<i>Helianthus angustifolius</i>	Swamp Sunflower	Aug-Oct	yellow	Sun	moist	1.5-5.5'	2-3'	deer resistant
•	<i>Hibiscus coccineus</i>	Texas Star	July-Aug	Red	Sun	Wet-dry	5-8'	2'	red flower
✓	<i>Hibiscus moscheutos</i>	Marsh Mallow		pink	Sun	wet-dry	3'	2'	not very interesting during most of the school year but good seed pods for plant structure lessons
	<i>Iris cristata</i>	Dwarf Crested Iris	May	light purple early	Partial Sun	gravelly well drained	8-10"	8"	Edger

				spring flowers		moist soils			
✓	<i>Iris fulva</i>	Copper Iris	June	Copper colored flowers	Sun	Dry-wet	18-24"	8"	Very drought tolerant
•	<i>Iris virginiana</i>	Blue Flag Iris	june	blue flowers, yellow fall color	Sun	wet- mod. Dry	24-36"	18"	Drought tolerant
✓	<i>Liatris spicata</i>	blazingstar	Jul-Aug	purple	Sun-pt shade	clay, loam, sand	1-6.5'	1-2'	deer resistant
✓	<i>Lilium superbum</i>	Turk's Cap Lily	July-Aug	Orange	Sun-pt shade	dry- moist	6'	12"	deer resistant, best for conservation planting areas
✓	<i>Monarda didyma</i>	Bee Balm	June- sept	pink	full Sun-pt Shade	Sand, Loam, Clay, Med- wet	12-18"	1'	deer resistant, not near doors/ open windows but flowers in summer
✓	<i>Monarda fistulosa</i>	Wild Bergamot	Jul-Aug	pink, purple	Sun-pt Shade	Moist- Dry	1.5-5'	1-2'	deer resistant; flowers in summer; do not place by doors/ windows
	<i>Phlox stolonifera</i>	Creeping Phlox	Apr-Jun	varied	PS-Shade	moist- dry	.5-1.5'	1'	deer resistant
✓	<i>Phlox paniculata</i>	Summer phlox	Jul-Oct	deep pink to white	sun-pt shade	moist	1.5'- 6.5'	1'	cultivars are shorter
	<i>Phlox subulata</i>	Moss Phlox	Apr-Jun	varied	Sun	Dry*	.5'	.5'	
✓	<i>Physostegia virginiana</i>	Obedient Plant	aug-sep	pink, purple	Sun	moist- dry	3'	2'	deer resistant
✓	<i>Rudbeckia fulgida</i>	Orange Coneflower	jul-oct	yellow- orange	Sun-pt Shade	med wet	1.5'	1-2'	
✓	<i>Rudbeckia hirta</i>	Black-eyed Susan	Jun-Oct	yellow	Sun, PS	Dry- Moist	2-3'	2'	

✓	<i>Rudbeckia laciniata</i>	Green-headed Coneflower	jul-sep	yellow	Sun-pt Shade	moist	1.5-9'	2'	
✓	<i>Scenecio aureus</i>	Sneezeweed	May-June	Yellow	Sun-Shade	moist-dry	15" flowers, 8" tall plant		Evergreen heart shaped leaf, groundcover
✓	<i>Sisyrinchium graminoides</i>	Blue-eyed Grass	Apr-Jun	blue	Sun-pt Shade	moist-dry	0.5-1.5'	.5-1'	groundcover
✓	<i>Solidago nemoralis</i>	Gray Goldenrod	Jul-Nov	yellow	Sun-pt Shade	Med-Dry	0.5-3'	1-2'	deer resistant
✓	<i>Solidago rugosa</i>	Wrinkle-leaf Goldenrod	Aug-Nov	yellow	Sun-pt shade	med-wet, loam, sand	1-6.5'	1-2'	deer resistant -- fall flowers; keep away from doors/ windows
✓	<i>Solidago sphacelata</i>		August-Sept	yellow	Sun-pt shade		18"		Golden Fleece' - fall flowers; keep away from doors/ windows
✓	<i>Solidago ulmifolia</i>	Elm leaf Goldenrod	Aug-Sept	yellow	Sun-pt.shade	med-dry	18"	18"	Wildlife plant -- - fall flowers; keep away from doors/ windows
	<i>Tiarella cordifolia</i>	Foamflower	May	White	pt shade-shade	med-dry	12" flower, 6" plant	8"	Groundcover for conservation areas
✓	<i>Tradescantia virginiana</i>	Spiderwort	June, reblooms if cut back after first flowering	blue	Sun-pt shade	med-wet, clay, loam, sand	1-5.5'	1-2'	Long blooming perennial , many cultivars
	<i>Veronicastrum virginicum</i>	Culver's Root	summer flowers	white	Sun	Sand, Loam, med-dry	4-6'	2-3'	

✓	<i>Viola labridorica</i>	Labrador Violet	June	purplish foliage and violet flowers	Sun-pt shade	Sandy, med-dry	4"	6"	groundcover
	FERNS								
	<i>Dennstaedtia punctilobula</i>	Hay-scented Fern			Sun-PS	Dry-moist	1-3'		spreads readily
	<i>Onoclea sensibilis</i>	Sensitive Fern			Shade	wet-moist	1-3.5'		
✓	<i>Osmunda cinnamomea</i>	Cinnamon Fern			Sun-Shade	wet-moist	2.5'		deer resistant
✓	<i>Osmunda regalis</i>	Royal Fern			Sun-Shade	wet-moist	2-6'		deer resistant
✓	<i>Polystichum acrostichoides</i>	Christmas Fern			PS-Shade	moist	.5-2'		evergreen
.	<i>Pteridium aquilinum</i>	Bracken Fern			Sun-PS	dry to wet	1.5-6'		
.	<i>Thelypteris noveboracensis</i>	New York Fern	deciduous		Sun-PS	dry-wet	24-36"		spreading
.									
	Grasses								
✓	<i>Andropogon gerardi</i>	Big Bluestem	aug-oct		Sun, PS	Dry-Moist-Wet	3-8'		deer resistant
✓	<i>Andropogon virginicus</i>	Broomsedge	aug-nov		Sun, PS	Dry	1-3'		
✓	<i>Carex stricata</i>	Tussock Sedge	may-aug		Sun, PS	Moist-Wet	1-3'		
✓	<i>Chasmanthium latifolium</i>	River Oats	jul-sep		Sun-Shade	dry-med, clay, loam,	2-5'		deer resistant, spreads freely

						sand			
✓	<i>Panicum virgatum</i>	Switchgrass	Jul-Aug		Sun-Shade	Sand, Loam, Clay, Med-wet	2'-3'	1'	deer resistant, cultivars shorter than species (e.g. 'Shenandoah') – 'Heavy Metal', 'Prairie Skies' are both v. reliable (taller than 'Shenandoah')
✓	<i>Schizachyrium scoparium</i>	Little Bluestem	Aug-Oct		Sun-pt Shade	dry	4'		deer resistant
	Shrubs								
✓	<i>Aronia arbutifolia</i> (<i>Photinia pyrifolia</i>)	Red chokeberry	Mar-May	white	sun-ps	dry to wet	1.5'-13'	3'	red berries, favorite food of Brown Thrasher
✓	<i>Calycanthus floridus</i>	Sweetshrub	June	Maroon flowers yellow fall color		dry to wet	3-8'	3'	'Athens' cultivar – yellow flower, fragrant flowers in late afternoon when in full sun
✓	<i>Cephalanthus occidentalis</i>	Buttonbush	July-Aug	white	sun-PS	moist-wet	3-10'	4'	great wildlife plant; unusual flower form
✓	<i>Clethra alnifolia</i> 'Ruby Spice'	Ruby Spice Summersweet, Pink dwarf Sweet Pepperbush	Spring	pink					Pink Flowers, upright, dwarf, yellow fall color
✓	<i>Cornus alternifolia</i>	Alternate-leaf Dogwood	white	white	PS	dry-moist			red fall color, understory shrub
✓	<i>Cornus amomum</i>	Silky dogwood	May-Jun	white	sun-PS	moist-wet	6-12'		red branches in winter

✓	<i>Cornus racemosa</i>	gray dogwood	May-Jun	white	Sun-shade	dry-moist	6-12'		red branches in winter
✓	<i>Cornus sericea</i>	Redosier Dogwood	white flowers	white					Red winter twig
✓	<i>Gaylussacia baccata</i>	Black Huckleberry	May-June	white	sun-pt shade	dry-moist	2-3'		
✓	<i>Ilex verticillata</i>	Winterberry	May-July	white	full sun-pt shade	dry-wet	6-12'		females w/red berries in winter; deciduous some salt tolerance
✓	<i>Ilex glabra</i>	Inkberry	May-Jun	white	sun-shade	dry-moist	6-10'		females w/black berries
✓	<i>Lindera benzoin</i>	Spicebush	late Spring	yellow	shade-pt shade	moist-dry	6-10'		Spicebush Butterfly plant, deer resistant t
✓	<i>Myrica cerifera</i> 'Nana'	Dwarf Wax Myrtle			Sun-shade	moist-dry well drained	3'	3'	Fine-medium texture, evergreen, shears well, salt tolerant
✓	<i>Myrica pensylvanica</i>	Northern Bayberry			Sun-shade	moist-dry well drained	6'	4'	Fine texture, evergreen, shears well, wildlife plant, salt tolerant
	<i>Sambucus canadensis</i>	Common elderberry	Jun-July	white	sun-shade	dry to wet	6-12'		purple fruit-wildlife - not near parking areas & sidewalks; may get borers
✓	<i>Viburnum acerifolium</i>	Mapleleaf viburnum	May	white	pt shade	dry			Mauvey fall color, maple shaped leaves,
✓	<i>Viburnum dentatum</i>	Arrowood	April-May	white	Sun-pt shade	dry to moist	3-6.5'		dk purple fruit-wildlife
✓	<i>Viburnum prunifolium</i>	Blackhaw	Apr-May	white	sun-pt shade	dry to moist	20'		purple fruit-wildlife
	Trees								
✓	<i>Amelanchier canadensis</i>	Serviceberry; shadbush	May-July	white	PS to shade	moist-wet	15-25'		

✓	<i>Betula nigra</i> 'Little King'	Little King River Birch							Dwarf River birch; also called 'Fox Valley'
✓	<i>Cercis</i> <i>canadensis</i>	Redbud	April- May	pink	sun-PS	dry	20-35'		
✓	<i>Chionanthus</i> <i>virginicus</i>	Fringetree	May	White					yellow fall color, gray winter bark; females make olive like drupes when planted with males
✓	<i>Hamamelis</i> <i>virginiana</i>	Witch hazel	Sep-Dec	small yellow fragrant	full sun- PS	dry to moist	15-30'		Yellow-orange fall leaf color
	<i>Ilex opaca</i>	American Holly		white	sun-PS	dry- moist	65'		Evergreen, females w/red berries in winter Many sizes available

Rain Garden Plant Schedule examples

Example Plant schedules for low
maintenance rain gardens –
mainly shrub/ woody plant based

	Rain Garden # 1	340 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
3	<i>Acer rubrum</i>	Red Maple	1 1/2" cal., 10-12 ft., trunk free of branches 5-6 ft.	20' o.c.	plant on edges of rain garden
10	<i>Calycanthus florida</i>	Sweetshrub	# 3	5' o.c.	Yellow fall color, Interesting seed pod,
3	<i>Cephalanthus occidentalis</i>	Buttonbush	# 3	8' o.c.	Yellow fall color, white summer flowers
5	<i>Chionanthus virginicus</i>	Fringetree	# 5	10' o.c.	White flowers, yellow fall color
12	<i>Ilex glabra 'Densa'</i>	Inkberry	# 3	6' o.c.	evergreen
13	<i>Itea virginiana 'Henry's Garnet'</i>	Virginia sweetspire	# 3	5' o.c.	white flowers, nice fall color, red twigs in winter
21	<i>Chasmanthium latifolium</i>	Upland Sea Oats	# 1	2' o.c.	

	Rain Garden # 2	440 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
1	<i>Acer rubrum</i>	Red Maple	1 1/2" cal., 10-12 ft., trunk free of branches 5-6 ft.	N/A	plant on edges of rain garden
9	<i>Aronia arbutifolia</i>	Red Chokeberry	# 3	7' o.c.	Multi-stem , brown thrasher food
15	<i>Calycanthus florida</i>	Sweetshrub	# 3	5' o.c.	Yellow fall color, Interesting seed pod,
9	<i>Itea virginiana</i>	Virginia sweetspire	# 3	6' o.c.	white flowers, nice fall color, red twigs in winter
6	<i>Magnolia virginiana</i>	Sweetbay	# 5	10' o.c.	Upright oval semi-evergreen form, white flowers

	Rain Garden # 3	800 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
10	<i>Amelanchier canadensis</i>	Shadblow	# 3	10'o.c.	Blooms when the Shad run in the creeks in the spring
3	<i>Amelanchier laevis</i>	Serviceberry	# 5	10' o.c.	Red fall color, white spring bloom
9	<i>Betula nigra 'Dura-Heat'</i>	River Birch	1 1/2" cal.	20' o.c.	Multi-stem tree plant on edges of rain garden
7	<i>Calycanthus florida</i>	Sweetshrub	# 3	5 ' o.c.	Yellow fall color, Interesting seed pod,
9	<i>Ilex verticillata</i>	Winterberry	# 5	8' o.c	6 'Winter Red' (female) and 1 'Southern Gentleman' (male)
5	<i>Itea virginiana 'Henry's Garnet'</i>	Virginia sweetspire	# 3	5' o.c.	white flowers, nice fall color, red twigs in winter
5	<i>Lindera benzoin</i>	Spicebush	# 3	8' o.c.	Larval plant for spicebush butterfly, yellow flower in early spring, yellow fall colort

	Rain Garden # 4	268 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
1	<i>Acer rubrum 'October Glory'</i>	October Glory Red Maple	1 1/2" cal., 10-12 ft., trunk free of branches 5-6 ft.	20' o.c.	red fall color, silvery bark
6	<i>Amelanchier canadensis</i>	Shadblow	# 5	10' o.c.	gray bark, blooms when the Shad run in streams in the spring
7	<i>Clethra alnifolia 'Ruby Spice'</i>	Summersweet	# 3	6' o.c.	Pink, blooms in summer; yellow fall color
6	<i>Fothergilla major 'Mt. Airy'</i>	Fothergilla	# 3	5' o.c.	White flowers in spring, yellow-orange fall color, set back from sidewalks
4	<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea	# 3	6' o.c.	white flowers, red fall color
5	<i>Ilex verticillata</i>	Winterberry	# 5	8' o.c.	Need 4 female ('Winter Red') and 1 male ('Southern Gentleman')
11	<i>Ilex vomitoria 'Nana'</i>	Dwarf yaupon Holly	# 1	2' o.c.	Evergreen dwarf shrub
1	<i>Magnolia virginiana</i>	Sweetbay magnolia	#5	N/A	Upright oval semi-evergreen form, white flowers

	Rain Garden # 5	510 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
5	<i>Lindera benzoin</i>	Spicebush	# 3	6' o.c.	Early spring, yellow flower; yellow fall color; host plant for spicebush butterfly, yellow fall color
3	<i>Amelanchier laevis</i>	Serviceberry	# 5	10' o.c.	Red fall color, gray bark, white spring flower
21	<i>Chasmanthium latifolium</i>	Upland Sea Oats	# 1	2' o.c.	Grassy appearance
9	<i>Cornus sericea</i>	Red-twig Dogwood	# 3	8' o.c.	Red winter twigs
25	<i>Iris fulva</i>	Copper iris	# 1	2' o.c.	copper spring flowers
3	<i>Rhododendron viscosum</i>	Swamp Azalea	# 3	5' o.c.	butterfly shrub

	Rain Garden # 6	270 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
5	<i>Aronia arbutifolia</i>	Red Chokeberry	# 3	8' o.c.	if # 3 is not avail, then # 1 OK but increase quantity to 7 and space 5' o.c.; great yellow fall color; red flowers, hummingbird attractor
5	<i>Cephalanthus occidentalis</i>	Buttonbush	# 3	8' o.c.	unusual white flowers
6	<i>Ilex decidua</i>	Possumhaw	# 3	10' o.c.	Need 5 female and 1 male 'Warren's Red' (female), 'Red Escort' (male)
7	<i>Itea virginiana</i>	Virginia Sweetspire	# 3	5' o.c.	red fall color, red fall color, red winter twigs

	Rain Garden # 7	585 sf			
Quantity	Botanic Name	Common Name	Size	Spacing	Comments
3	<i>Aesculus pavia</i>	Red Buckeye	# 3	6' o.c.	If # 3 is not avail, then # 2 OK but change quantity to 5 and space 4' o.c.; great yellow fall color; red flowers, hummingbird attractor
6	<i>Calycanthus florida</i>	Sweetshrub	# 3	4' o.c.	Yellow fall color, Interesting seed pod,
9	<i>Cercis canadensis</i>	Redbud	# 5	10' o.c.	Plant near edges (w/in 3' of edge, drier parts)
5	<i>Chionanthus virginicus</i>	Fringetree	# 5	8' o.c.	Slow grower, white flowers; females produce black drupe if planted with males
6	<i>Clethra alnifolia 'Ruby Spice'</i>	Summersweet	# 3	6' o.c.	Upright, yellow fall color, pink flowers
12	<i>Cornus sericea</i>	Red-Twig Dogwood	# 3	6' o.c.	Red twigs, white flowers, yellow fall color
3	<i>Hydrangea arborescens</i>	Sweet Hydrangea	# 3	5' o.c.	'Annabelle' cultivar OK
15	<i>Fothergilla major 'Mt. Airy'</i>	Fothergilla	# 3	5' o.c.	White flowers in spring, yellow-orange fall color, set back from sidewalks
1	<i>Taxodium distichum</i>	Bald Cypress	1 1/2" cal, 10-12 ft., trunk free of branches 3-5 ft.	N/A	Plant on edge of rain garden

Rainscapes for Schools Basic Plant List

Conservation Landscaping

The plants shown on the list for Rain Gardens are also appropriate for conservation landscape projects. However, in a conservation landscape project, the planting design should include a representative sampling from a particular plant community which is being represented. In this example below, the plant community that a class could research would be the Oak-Hickory Climax Forest species. Then, the planting design would strive to have a representative set of plants from that community that ranged from the canopy tree to the groundlayer plants.

If smaller trees are planted, protect them from browse with protective tubes.

A class could do the research on which plant community for the Piedmont they would like to emulate in their planting project. The example given is a forest community since that was the typical cover type in the county prior to development. However, a meadow community or other forest community type such as the edge environments between forest and meadow are also educationally valuable types of plant communities to plant because of the diverse range and quantity of the many different birds and butterflies and other species which rely on edge environments for their survival.

Example:

Natural Oak Hickory Climax Forest Species prevalence: Oaks (Black, N. Red, Scarlett and White) - 44.8%, Hickory (Mockernut and Pignut (7.6% and 16.1%)) - 23.7%, Red Maple 8.4%, White Ash 4.8%, Sassafrass, 3%, Black Cherry 5.1%, Yellow Poplar .5%, American Beech .9%, Other misc. species, 6.6%

Mix A - Upland			
Botanic Name	Common Name	Percent of mix	Canopy or understory (C or U)
<i>Aesculus parviflora</i>	Bottlebrush Buckeye	5	U
<i>Cercis canadensis</i>	Redbud	15	U
<i>Carpinus caroliniana</i>	Hornbeam	5	U
<i>Juniperus virginiana</i>	Red Cedar	5	C
<i>Nyssa sylvatica</i>	Black Gum	10	C
<i>Quercus alba</i>	White Oak	20	C
<i>Quercus prinus</i>	Chestnut Oak	10	C
<i>Quercus shumardii</i>	Shumard Oak	5	C
<i>Quercus velutina</i>	Black Oak	20	C
<i>Pinus virginiana</i>	Virginia Pine	5	C
Total %		100	

Mix B - Midslope			
Botanic Name	Common Name	Percent of mix	Canopy or understory (C or U)

<i>Acer rubrum</i> 'October Glory' , 'Somerset', 'Sun Valley' or 'Brandywine'	October Glory Red Maple or other male selection	15	C
<i>Amelanchier laevis</i>	Serviceberry	15	U
<i>Carya</i> spp. e.g. <i>ovata</i> , <i>glabra</i> or <i>tomentosa</i>	Hickory (Shagbark, Pignut, Mockernut)	10	C
<i>Cercis canadensis</i>	Redbud	5	U
<i>Diospyros virginiana</i>	Persimmon	5	C
<i>Hamamelis virginiana</i>	Witch Hazel	15	U
<i>Liquidambar styraciflua</i> 'Triloba'	Sweetgum (sterile)	10	C
<i>Ostrya virginiana</i>	Hophornbeam	10	U
<i>Quercus prinus</i>	Chestnut Oak	10	C
<i>Viburnum prunifolium</i>	Rusty Blackhaw	5	U
Total %		100	

Mix C - Lowland			
Botanic Name	Common Name	Percent of mix	Canopy or understory (C or U)
<i>Acer rubrum</i> 'October Glory' , 'Somerset', 'Sun Valley' or 'Brandywine'	Red maple, male selections	17	C
<i>Amsonia triloba</i> (subst. <i>Amelanchier</i> <i>laevis</i> OK)	PawPaw	10	U

<i>Betula nigra</i> 'Dura-Heat' (better than 'Heritage')	River Birch	10	C
<i>Celtis occidentalis</i>	Hackberry	5	C
<i>Fagus grandifolia</i>	Beech	5	C
<i>Ilex opaca</i>	American Holly	5	U/C
<i>Liriodendron tulipifera</i>	Tulip poplar	5	C
<i>Magnolia grandiflora</i> 'Edith Bogue'	Southern Magnolia	2	C
<i>Magnolia virginiana</i>	Sweetbay magnolia	8	U
<i>Ostrya virginiana</i>	Hophornbeam	5	U
<i>Platanus acerifolia</i>	Sycamore	5	C
<i>Quercus palustris</i>	Pin Oak	8	C
<i>Quercus phellos</i>	Willow Oak	10	C
<i>Taxodium distichum</i>	Bald Cypress	5	C
Total %		100	

Urban Canopy Trees

The following species , all native to Montgomery County, will be considered at this time (DEP approval may be requested for others):

American elm (Valley Forge or Princeton) (*Ulmus americana*)
American sweetgum (*Liquidambar styraciflua*)
American sycamore (*Platanus occidentalis*)
black gum (*Nyssa sylvatica*)
black oak (*Quercus velutina*)
common baldcypress (*Taxodium distichum*)
common honeylocust (*Gleditsia triacanthos*)
Kentucky coffeetree (*Gymnocladus dioica*)
littleleaf linden (*Tilia cordata*)
northern red oak (*Quercus rubra*)
red maple (*Acer rubrum*)
scarlet oak (*Quercus coccinea*)
shingle oak (*Quercus imbricaria*)
silver maple (*Acer saccharinum*)
swamp white oak (*Quercus bicolor*)
willow oak (*Quercus phellos*)
sugar maple (*Acer saccharum*)
tulip-poplar (*Liriodendron tulipifera*)
yellow buckeye (*Aesculus flava* Sol. (*Aesculus octandra* Marsh.)
white oak (*Quercus alba*)

The following trees, all native to Montgomery County, will be considered at this time but are not commonly found at local nurseries in large sizes:

American beech (*Fagus grandifolia*)

bigtooth aspen (*Populus grandidentata*)

bur oak (*Quercus macrocarpa*)

hickories, mockernut or pignut (*Carya* sp.)

overcup oak (*Quercus lyrata*)

pond cypress (*Taxodium ascendens*)